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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,287	10/14/2004	Ronald Willem Arie Oorschot	294-200 PCT/US	1861

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EXAMINER
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ZHOU, JIA QI

ART UNIT	PAPER NUMBER
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3643

DATE MAILED: 11/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/511,287

Applicant(s)

OORSCHOT, RONALD WILLEM  
ARIE

Examiner

Jia-Qi (Josh) Zhou

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10/14/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/22/2004</u> | 6) <input type="checkbox"/> Other: ____  |

## **DETAILED ACTION**

### ***Specification***

1. The abstract of the disclosure is objected to because of occurrences of the word "means" on lines 2, 4 and 7 and the word "said" on lines 3 and 4. Also, the abstract is over 150 words. Correction is required. See MPEP § 608.01(b).

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The disclosure is objected to because of the following informalities: There are numerous instances where the specification shows reliance from features characterized by claims. For example, line 9 of page 2 shows a reliance upon claim 1, line 18 of page 3 relies on claim 4, lines 9 and 24 of page 4 relies on claims 6 and 9, respectively, lines 4, 18, and 24 of page 5 corresponds to claims 10, 12, and 14, respectively. Since the claims may change during prosecution, they may not be the same claims as intended when the applicant first wrote this specification. The applicant should specifically rely on those features of the claims instead of just referring to the claim number.

Appropriate correction is required.

***Claim Objections***

3. Claim 4 is objected to because of the following informalities: The recitation of the limitation "said first direction" in the second line of the claim. There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.
4. Claim 10 is objected to because of the following informalities: There is awkward language on line 2 with the use of "...animals from of off..." Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 1-8, 10, and 12-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
6. Regarding claim 1, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).
7. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then

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narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 3 recites the broad recitation "fluid is introduced into bottom less than 25 cm", and the claim also recites "particularly less than 10 cm" and "preferably between 0 and 7 cm" which is the narrower statement of the range/limitation.

8. Regarding claims 5 and 14, the applicant mentioned "impulses and/or an electric and/or magnetic field." It is unclear whether the applicant chooses impulses, electric or magnetic, or a combination of both.

9. The term "particular" in claim 6 is a relative term which renders the claim indefinite. The term "particular" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is unclear whether the applicant is claiming the broad "sound" or "ultrasonic sound".

10. The term "preferably" in claim 10 is a relative term which renders the claim indefinite. The term "preferably" on line 6 is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is

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unclear whether the applicant is claiming the water to be introduced "at a gentle angle" or "approximately parallel".

11. The term "preferably" in claim 12 is a relative term which renders the claim indefinite. The term "preferably" on line 4 is not defined by the claim, the specifications does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is unclear whether the applicant means for the tines to be extended partly or entirely above the bottom.

12. The term "in particular" in claim 13 is a relative term which renders the claim indefinite. The term "in particular" on line 2-3 is not defined by the claim, the specifications does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The position of use is unclear as to whether or not it is limited to the mentioned first position.

13. Claims 2, 4, 7 and 8 are rejected because they are dependent on a rejected claim.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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14. Claims 1-3, 7 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 3,862,502 to Young.

Regarding claim 1, the reference of Young discloses a method to harvest creatures from the ocean floor where the collecting device (Fig 2-4) is moved over the bottom and moves the animals from or off the water bottom, where at least one tine (25) can penetrate into the bottom and is provided with fluid outlet means that can force pressurized water into the ocean floor.

Regarding claim 2, since the tines (25) and the water jet nozzles (25) are the same, the direction of the moving tines is approximately the same as the direction of the forced fluids.

Regarding claim 3, the length of time and the strength of the pressure of the water can vary the depth of fluid introduced into the bottom. Also, if the water jet is inoperative or is parallel to the bottom, then the fluid would be introduced at 0cm below the surface of the bottom.

Regarding claim 7, the sea creatures can be pushed from the bottom with these same tines (25), and can be discharged upward with manual operation of the flexible towline (15) into a collecting means (40).

Regarding claim 8, the sea creatures from the bottom are caught in the form of a bag-shaped net (41).

15. Claim 9 is rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 3,297,980 to Haslett.

The reference of Haslett shows an apparatus (Fig 1) with support means for support on a water bottom with use of drag lines (12), detecting means in the form of sound detection with the use of transmitting transducer (14) and receiving transducer (18). The means for moving the animal from off the bottom, drivable on the basis of a signal to be delivered by the detecting means is capable with the help of ship (13) and the use of drag lines (12).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 3,862,502 to Young in view of U.S. Patent No. 3,297,980 to Haslett.

The reference of Young discloses all of the items in claim 1 along with the use of tines (25) to move the animals, but did not disclose a detection mean to locate the animals and activate the tines. The reference of Haslett does disclose a detection method in the form of sound (16). It would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the teachings of Haslett to incorporate a detection method that leads to the activation of the tines into the device of Young in order to cut down on wasted time and improve the efficiency of the harvesting process.



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17. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 3,862,502 to Young in view of U.S. Patent No. 3,297,980 to Haslett, and further in view of U.S. Patent No. 4,563,830 to Cain, Jr. et al.

The reference of Young, as modified by Haslett, in the previous paragraph discloses a detection method in which at least one tine move to the bottom after a sound method locates animals on the bottom. It did not disclose the use of electric means that are activated on the basis of signals from the detection means. However, the reference of Cain, Jr. et al. does disclose a shellfish harvester that has electric means in the form of electrodes (4) that are located in front of its tines (46). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have applied the use of electric means arranged near the tines in the teachings of Cain into the detection operated collection device in the reference of Young as modified by Haslett in order to better flush out the animals out of the bottom that may be missed by the moving tines.

18. Claims 9, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,563,830 to Cain, Jr. et al. in view of U.S. Patent No. 3,297,980 to Haslett.

The trawl assembly (1) of Cain, Jr. et al. discloses supporting means in the form of frames and supports (Fig 1: 5-8, 10-14), means for moving the animals from off the water bottom in the form of a rake-like device (45) having tines (46) that can extend downward. The device of Cain, Jr. et al. also disclose an electric means for generating

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a surge in the form of electrically charged electrodes (4) located in front of the device. It does not disclose a detecting means for detecting animals in or on the water bottom and deliver a signal to the moving means (45). However, the device of Haslett (10) does include a detecting means in the form of sound (16) to locate animals in or on the water bottom with the aid of transmitter (14) and receiver (18). It would have been obvious to one having ordinary skill in the art at the time the invention was made to include an electric mean as taught by the Cain reference that will be active based on signal from detection as taught by Haslett because it will provide a more efficient and thorough search of the sea bottom.

19. Claims 10-13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,563,830 to Cain, Jr. et al. in view of U.S. Patent No. 3,297,980 to Haslett, and further in view of U.S. Patent No. 3,862,502 to Young.

The device of Cain, Jr. et al., as modified by Haslett, discloses the means for moving animals from water bottom with row of tines (46) that can move between a first position and a second position which can extend below the supporting frame (Fig 1: 5-8, 10-14), and a mean for detection animals using sound. It does not disclose a water supply that can introduce water under pressure into the bottom. However, the clam harvester device of Young (Fig 2-4) discloses water jet nozzles (25a) that extend forwardly from the supply pipes (26). These same jet nozzles (25a) also act as tines, and therefore makes it possible for the water that is introduced to be parallel to the tines when in use. Young also disclose a craft (13) that is towed by a flexible towline (15)

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and it also has a supply tube to supply the water (32). It would have been obvious to one having ordinary skill in the art at the time the invention was made to add pressurized water of the reference of Young to work alongside the tines in the device of Cain as modified by Haslett to help with the removal of the animals on the ocean floor.

### ***Conclusion***

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to further show the state of the art with respect to methods and apparatus of harvesters:

U.S. Patent No. 4,112,602 to Kato et al.

U.S. Patent No. 5,027,533 to Holt et al.

U.S. Patent No. 5,970,635 to Wilmoth

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jia-Qi (Josh) Zhou whose telephone number is 571-272-3096. The examiner can normally be reached on Monday thru Friday 8am-4:30pm.

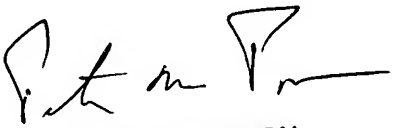
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter M. Poon can be reached on 571-272-6891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jia-Qi (Josh) Zhou  
Examiner  
Art Unit 3643

jz  
10/31/2005

  
PETER M. POON  
SUPERVISORY PATENT EXAMINER

10/31/05